UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/571,603	03/10/2006	Ralph McNeill	KC-0169	9829

34610 7590 05/13/2008

KED & ASSOCIATES, LLP
P.O. Box 221200
Chantilly, VA 20153-1200

EXAMINER	
SANDERS, KRIELLION ANTIONETTE	
ART UNIT	PAPER NUMBER
1796	
MAIL DATE	DELIVERY MODE
05/13/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/571,603	MCNEILL, RALPH	
	Examiner	Art Unit	
	Kriellion A. Sanders	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-79* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-79* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11, 12, 20, 21, 40, 41, 55, 56 64, 65, 69 and 75 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11 and 12 do not indicate which of the two polymer components the claims refer to. Both resins are molecular weight resins.

1. Claims 20, 21, 40, 41, 55, 56 64, 65, 69 refer to trade names or trademarks and are indefinite. The term PVDC in claim 75 is indefinite. Trademarks should be capitalized wherever they appear and be accompanied by their generic terminology. The claims must define the metes and bounds of the invention.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7-9, 11-19, 22-34, 35-39, 42, 44-45, 47,-54, 57, 59, 68, and 77 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by PCT World Patent 99/50347.

PCT '947 discloses materials for use as safety glass that comprise a mixture of a polymeric material and a thermoplastic polystyrene resin having a molecular weight of between 500 and 5000. The polymeric material may be a high molecular weight impact or crystal polystyrene, ABS or SAN. The safety glass material may further comprise ingredients selected from the list of UV inhibitors, antioxidants, flow modifiers, fire retarding agents, color pigments and brighteners. The material is typically used in emergency equipment, glassware and windows.

According to the patented invention the safety glass material exhibits a tensile stress limit of between 11 and 60 Nmm-2, which may be transparent and can be made into sheets or structures just like ordinary glass. When the safety glass of the patented invention shatters, it is broken into fragments that are not capable of damaging human skin or tissue.

The material may further comprise ingredients selected from the list of UV inhibitors, antioxidants, flow modifiers, fire retarding agents, color pigments and brighteners.

These materials are present in the patented invention at between 0.001% and 0.01%. In a preferred embodiment of the invention the safety glass is composed of crystal or impact polystyrene (0-85%) and thermoplastic polystyrene resin (0-15%) together with 0.001% to 0.01% UV inhibitors, antioxidants, flow modifiers, fire retarding agents, color pigments. and brighteners, which gives a safety glass material which has a stress limit of between 11 and 60 Nmm-2.

The material is typically used in emergency equipment, glassware and windows.

The patent encompasses oxygen scavengers and various articles to be made of the patented compositions.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 6, 10, 20, 21, 33, 34, 40, 41, 43, 46, 55, 56, 58, 60-67, 69-76, 78 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over PCT World Patent 99/50347 as applied above and in view of the following remarks and further in view of the literature reference to Abetz et al, Tibbet et al PG Pub 2002/0183448 Jacoby et al, US Patent No. 5,310,584.

6. Because the low molecular weight styrenic resins of the patented invention are the same as applicant's and fall within the required molecular weight limitations as those of applicant's claims, the resins are considered to also possess the same number of repeating units. It would have at least been obvious to the ordinary practitioner in this art to formulate the glass utilizing low molecular weight styrenic resins having 50 repeating units.

7. The polymers generically disclosed by the patent would suggest the use of any specific species that may be included by the undefined Tradenames of applicant's claims. The use of the

commercial species would have been obvious to one of ordinary skill in the art at the time of applicant's invention.

8. The elevation of the glass transition temperatures of the polymers or resins during processing is a product of the process parameters that is inherent to the composition. This is obvious to the art skilled as is documented by Abetz et al at pages 3847 and 3848.

The production of articles from the glass of the World patent by blow molding or extrusion blow molding is obvious since glass products are commonly extruded and/or blow molded. See Tibbett et al at paragraphs [0045-0048}.

The production of articles from the glass of the World patent that include a barrier which is an oxygen barrier of acrylonitrile-methyl acrylate copolymer is obvious in view of Jacoby et al which states at col. Lines that gas/chemical barrier polymers include high nitrile polymers such as Barex 210 and Barex 218 (high acrylonitrile-methyl acrylate copolymers grafted onto a preformed poly(butadiene-acrylonitrile) elastomer).

The production of articles from the glass of the World patent that include an inorganic or organic coating such as from amorphous carbon or two-component epoxy amine is obvious in view of Tibbett et al which indicates the following at paragraph [0039]:

> Coatings of various forms are envisioned which may be useful in combination with oxygen scavenging monolayer containers. The key is that the coating fits one of the described advantages above. Examples include both internal and/or external coatings. Those applied by plasma deposition (e.g. Actis. TM., Best PET.TM.), dip or spray methods (e.g. PPG's Bairocade.RTM.), and overmolding (E.g. Blox). They include silica and alumina based, carbon, and polymeric (epoxy-amine) coatings. Coatings are

generally applied to otherwise fully formed containers, but the applicants also envision application to precursor monolayer scavenger objects such as preforms (e.g. overmolding Blox and then blowing a bottle) or thermoforming sheets.

The combination of the prior art relied upon herein would have rendered applicant's specific design features obvious at the time of applicant's invention absent a clear showing of unexpected results attributable to such design features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 8:30am-7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kriellion A. Sanders/

Primary Examiner, Art Unit 1796

Kriellion A. Sanders
Primary Examiner
Art Unit 1796

ks